

CLAIMS

What is claimed:

1. A method for treating or preventing a tumor necrosis factor-mediated disease in an individual in need thereof comprising co-administering a tumor necrosis factor antagonist and a CD4+ T cell inhibiting agent to the individual, in therapeutically effective amounts.
2. A method of Claim 1 wherein the tumor necrosis factor antagonist and a CD4+ T cell inhibiting agent are administered simultaneously.
3. A method of Claim 1 wherein the tumor necrosis factor antagonist and a CD4+ T cell inhibiting agent are administered sequentially.
4. A method of Claim 1 wherein the tumor necrosis factor-mediated disease is selected from the group consisting of: autoimmune disease, acute or chronic immune disease, inflammatory disease and neurodegenerative disease.
5. A method of Claim 4 wherein the CD4+ T cell inhibiting agent is cyclosporin or analog thereof.
6. A method of Claim 5 wherein the tumor necrosis factor antagonist is an anti-tumor necrosis factor antibody or fragment thereof.
7. A method of Claim 6 wherein the antibody is a chimeric antibody.

8. A method of Claim 5 wherein the tumor necrosis factor antagonist is a receptor molecule which binds to tumor necrosis factor.
- 5 9. A method of Claim 8 wherein the receptor molecule is a tumor necrosis factor receptor/immunoglobulin G fusion protein.
- 10 10. A method of Claim 5 wherein the tumor necrosis factor antagonist prevents or inhibits tumor necrosis factor synthesis, tumor necrosis release or its action on target cells.
11. A method of Claim 10 wherein the tumor necrosis factor antagonist is a phosphodiesterase inhibitor.
12. A method of Claim 11 wherein the phosphodiesterase inhibitor is pentoxifylline.
- 15 13. A method of Claim 10 wherein the tumor necrosis factor antagonist is thalidomide.
- 20 14. A method of Claim 1 wherein an anti-inflammatory agent is administered in conjunction with the CD4+ T cell inhibiting agent and the tumor necrosis factor antagonist.
- 25 15. A method for treating or preventing rheumatoid arthritis in an individual in need thereof comprising administering to the individual cyclosporin or analog thereof in combination with a tumor necrosis factor antagonist, in therapeutically effective amounts.
16. A method of Claim 15 wherein the tumor necrosis factor antagonist is an anti-tumor necrosis factor antibody

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or fragment thereof.

17. A method of Claim 16 wherein the antibody is a chimeric antibody.

5 18. A method of Claim 15 wherein the tumor necrosis factor antagonist is a receptor molecule which binds to tumor necrosis factor.

19. A method of Claim 18 wherein the receptor molecule is a tumor necrosis factor receptor/immunoglobulin G fusion protein.

10 20. A method of Claim 15 wherein the tumor necrosis factor antagonist prevents or inhibits tumor necrosis factor synthesis, tumor necrosis factor release or its action on target cells.

15 21. A method of Claim 20 wherein the tumor necrosis factor antagonist is a phosphodiesterase inhibitor.

22. A method of Claim 21 wherein the phosphodiesterase inhibitor is pentoxifylline.

20 23. A method for treating or preventing Crohn's disease in an individual in need thereof comprising administering to the individual cyclosporin or analog thereof in combination with a tumor necrosis factor antagonist, in therapeutically effective amounts.

25 24. A method of Claim 23 wherein the tumor necrosis factor antagonist is an anti-tumor necrosis factor antibody or fragment thereof.

25. A method of Claim 24 wherein the antibody is a

chimeric antibody.

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- 5 26. A method of Claim 23 wherein the tumor necrosis factor antagonist is a receptor molecule which binds to tumor necrosis factor.
- 10 27. A method of Claim 26 wherein the receptor molecule is a tumor necrosis factor receptor/immunoglobulin G fusion protein.
28. A method of Claim 23 wherein the tumor necrosis factor antagonist prevents or inhibits tumor necrosis factor synthesis, tumor necrosis factor release or its action on target cells.
29. A method of Claim 28 wherein the tumor necrosis factor antagonist is a phosphodiesterase inhibitor.
- 15 30. A method of Claim 29 wherein the phosphodiesterase inhibitor is pentoxifylline.
- 20 31. A method for treating or preventing acute or chronic immune disease associated with a transplantation in an individual comprising administering to the individual cyclosporin or analog thereof in combination with a tumor necrosis factor antagonist, in therapeutically effective amounts.
- 25 32. A method of Claim 31 wherein the transplantation is selected from the group consisting of: renal transplantation, cardiac transplantation, bone marrow transplantation, liver transplantation, pancreatic transplantation, small intestine transplantation, skin transplantation and lung transplantation.

33. A method of Claim 31 wherein the tumor necrosis factor antagonist is an anti-tumor necrosis factor antibody or fragment thereof.
34. A method of Claim 33 wherein the antibody is a
5 chimeric antibody.
35. A method of Claim 31 wherein the tumor necrosis factor antagonist is a receptor molecule which binds to tumor necrosis factor.
36. A method of Claim 35 wherein the receptor molecule is
10 a tumor necrosis factor/immunoglobulin G fusion protein.
37. A method of Claim 33 wherein the tumor necrosis factor antagonist prevents or inhibits tumor necrosis factor synthesis, tumor necrosis factor release or its action
15 on target cells.
38. A method of Claim 37 wherein the tumor necrosis factor antagonist is a phosphodiesterase inhibitor.
39. A method of Claim 38 wherein the phosphodiesterase inhibitor is pentoxifylline.
- 20 40. A composition comprising a tumor necrosis factor antagonist and a CD4+ T cell inhibiting agent.
41. A composition of Claim 40 wherein the tumor necrosis factor antagonist is an anti-tumor necrosis factor antibody or fragment thereof.
- 25 42. A composition of Claim 41 wherein the antibody is a chimeric antibody and the CD4+ T cell inhibiting agent

is cyclosporin or an analog thereof.

- 5 43. A composition of Claim 40 wherein the tumor necrosis factor antagonist prevents or inhibits tumor necrosis factor synthesis, tumor necrosis factor release or its action on target cells.
44. A composition of Claim 43 wherein the tumor necrosis factor antagonist is a phosphodiesterase inhibitor and the CD4+ T cell inhibiting agent is cyclosporin or an analog thereof.
- 10 45. A composition of Claim 44 wherein the phosphodiesterase inhibitor is pentoxifylline.